IN THE CLAIMS

This is a complete and current listing of the claims, marked with status identifiers in parentheses. The following listing of claims will replace all prior versions and listings of claims in the application.

1. through 16. (Cancelled)

17. (New) Device for the elimination of particles from smoke and exhaust gases as wall as ventilation air, wherein that it comprises a first chamber having an inlet for smoke or exhaust gas or ventilation air, that it further comprises a heatable combustion zone, that it comprises a second chamber having an inlet from said first chamber for said gas, and that it comprises an outlet for agglomeration and collection of particles having a particle size less than 1 μm, preferably less than 0,5 μm, more preferably less than 0,3 μm, further more preferably less than 0,2 μm, which particles after agglomeration have a particle size of at least 6 μm, whereby that the device hither catches and makes the agglomerated particles subject to a combustion.

18. (New) Device according to claim 17, wherein that it further comprises means for providing turbulence of said gas in said first chamber.

19. (New) Device according to claim 17, wherein that it further comprises means for providing laminar flow to said gas.

20. (New) Device according to claim 17, wherein that it further comprises means for adding atomized liquid, preferably water.

21. (New) Device according to claim 17, wherein that it comprises means for condensing said atomized liquid.

22. (New) Device according to claim 17, wherein that it further comprises an

outlet for particle containing condensate.

23. (New) Device according to claim 17, wherein that the device further comprises a second inlet into the first chamber for the addition of combustion aiding gas.

24. (New) Device according to claim 17, wherein that the device further comprises a heat exchanger arranged in the second chamber to heat exchange between gas and liquid.

25. (New) Device according to claim 17, wherein that the device further comprises a heat exchanger arranged in the outlet of the second chamber for heat exchange between gas and gas.

26. (New) Device according to claim 17, wherein that the device further comprises means for the addition of energy to said heatable combustion zone.

27. (New) Device according to claim 17, wherein that the device comprises a means for atomizing a liquid.

28. (New) Device according to claim 17, wherein that the means for atomizing liquid comprises a means for transfer of liquid into vapor form.

29. (New) Device according to claim 17, wherein that the means for separation of a condensate comprises a rotatable helical centrifuge.

30. (New) Device according to claim 17, wherein that the device further comprises a gas outlet placed in the outlet of the second chamber, in which gas outlet there is an evacuation fan to obtain a subpressure in said first and second chambers for the driving of said helical centrifuge.

31. (New) Device according to claim 17, wherein that the device comprises a tubular chamber having an inlet part, which chamber is provided with a gas permeable sock which allows passage of a substantially particle free gas to a second chamber, that it comprises a brake plane arranged in the first chamber at the end facing away from the inlet part to catch and agglomerate particles and in connection to said brake plane there is a combustion zone arranged and that it comprises an outlet for the elimination of collected, non-combusted particles.

32. (New) Device according to claim 17, wherein that it comprises a temperature influenced opening arranged in the inlet part to obtain a predetermined high smoke gas flow in the first chamber to obtain a safe catch of the particles at the brake plane of the device.